

WALLER LANSDEN DORTCH & DAVIS

A PROFESSIONAL LIMITED LIABILITY COMPANY

NASHVILLE CITY CENTER
511 UNION STREET, SUITE 2100
POST OFFICE BOX 198966
NASHVILLE, TENNESSEE 37219-8966

(615) 244-6380

FAX: (615) 244-6804
www.wallerlaw.com

WALLER LANSDEN DORTCH & DAVIS, LLP
AFFILIATED WITH THE PROFESSIONAL LIMITED LIABILITY COMPANY
520 SOUTH GRAND AVENUE, SUITE 675
LOS ANGELES, CALIFORNIA 90071
(213) 362-3680

REC'D TN
REGULATORY AUTH.
WALLER LANSDEN DORTCH & DAVIS
A PROFESSIONAL LIMITED LIABILITY COMPANY
809 SOUTH MAIN STREET
POST OFFICE BOX 1035
COLUMBIA, TENNESSEE 38402-1035
(931) 388-6031
EXECUTIVE SECRETARY

D. Billye Sanders
(615) 850-8951
bsanders@wallerlaw.com

April 8, 2002

Via Hand-Delivery

K. David Waddell
Executive Secretary
Tennessee Regulatory Authority
460 James Robertson Parkway
Nashville, Tennessee 37219

02-00383

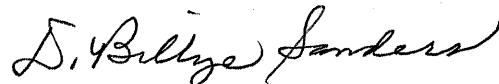
**Re: Petition of Chattanooga Gas Company for Approval of Tariff
Modifying PGA Rider**

Dear Mr. Waddell:

Enclosed for filing please find the original and thirteen (13) copies of the above referenced petition filed on behalf of Chattanooga Gas Company and a check for \$25 for the filing fee. The pre-filed testimony of one of the witnesses, Beverly Wright, has three (3) video tapes of focus groups with Chattanooga Gas customers as an exhibit to the testimony. We have only enclosed one set of the video tapes.

Please contact me if you have any questions.

Sincerely,



D. Billye Sanders
Attorney for Chattanooga Gas Company

DBS:lmb

Enclosures

cc: Hal Novak
Mr. Archie Hickerson, Manager – Rates
Earl Burton
Consumer Advocate & Protection Division

**BEFORE THE TENNESSEE REGULATORY AUTHORITY
NASHVILLE, TENNESSEE**

IN RE:

PETITION OF CHATTANOOGA GAS)	
COMPANY FOR APPROVAL OF)	
CHANGE IN PURCHASED GAS)	DOCKET NO. 02-_____
ADJUSTMENT)	

**PETITION FOR APPROVAL OF CHANGE IN
PURCHASED GAS ADJUSTMENT**

Pursuant to TRA Rule 1220-4-1-.06 and Rule 1220-1-1-.05, Chattanooga Gas Company, a Tennessee corporation, ("Chattanooga Gas" or "Petitioner") respectfully requests that the Tennessee Regulatory Authority ("TRA" or "Authority") approve Petitioner's tariff which changes the existing PGA (Purchased Gas Adjustment) rider by establishing an Experimental Fixed Rate PGA Rider ("FRT"). The proposed FRT is attached hereto as Exhibit A.

In support of this Petition, Chattanooga Gas submits the following information:

1. Full name and address of the principal place of business of the

Petitioner are:

Chattanooga Gas Company
6125 Preservation Drive
Chattanooga, Tennessee 37416

2. All correspondence and communications with respect to this Petition should be sent to the following:

Earl Burton, Manager
Marketing/Rates
Chattanooga Gas Company
6125 Preservation Drive
Chattanooga, Tennessee 37416
Telephone: (423) 490-4311
Facsimile: (423) 490-4333

Archie Hickerson, Manager-Rates
AGL Resources
Location 1686
P. O. Box 4569
Atlanta, GA 30302-4569
Telephone: (404) 584-3855
Facsimile: (404) 584-3489

William H. Novak
Vice President of Regulatory Compliance
Sequent Energy Management, L. P.
Location 7500
P. O. Box 4569
Atlanta, GA 30302-4569
Telephone: (404) 584-3399
Facsimile: (404) 584-3489

D. Billye Sanders
Waller Lansden Dortch & Davis
A Professional Limited Liability Company
511 Union Street, Suite 2100
Nashville, Tennessee 37219
Telephone: (615) 244-6380
Facsimile: (615) 244-6804

3. Chattanooga Gas is incorporated under the laws of the state of Tennessee and is engaged in the business of transporting, distributing and selling natural gas in Hamilton and Bradley Counties within the state of Tennessee and surrounding environs. Chattanooga Gas is a public utility pursuant to the laws of

the state of Tennessee and its public utility operations are subject to the jurisdiction of this Authority. Chattanooga Gas is a wholly-owned subsidiary of AGL Resources, Inc.

4. The purpose of the FRT is to provide customers of Chattanooga Gas with certainty on an annual basis relative to their natural gas rates, regardless of consumption or weather. Chattanooga Gas developed the FRT in response to the financial hardships faced by residential and small commercial customers due to the volatility in natural gas wholesale prices during past winter heating seasons, particularly the winter of 2000, and in response to the request of the TRA that gas companies be actively engaged in developing methods to reduce the impact of gas price volatility on natural gas customers. As an example of this volatility, last heating season customers of Chattanooga Gas were faced with costs ranging from \$ 0.42 per hundred cubic feet ("CCF") to \$ 1.00 per CCF. Based on current market conditions, the fixed rate to be offered under the FRT would be approximately \$0.62 per CCF. The net benefit to customers is that, should natural gas wholesale prices again increase dramatically, the FRT would protect customers from these increased costs by establishing in advance a fixed price for the next twelve months. Chattanooga Gas believes the fixed rate that it proposes is fair and reasonable. (See Pre-filed Testimony of Larry Buie, General Manager of Chattanooga Gas, attached hereto as Exhibit B.)

If approved by the Authority, the experimental tariff will be in effect for a three-year period beginning October 1, 2002, and will apply to Residential

General Service (R-1), Multi-Family Housing Service (R-4), and Commercial and Industrial General Service (C-1) rate schedules. The FRT will supersede Chattanooga Gas' regular Purchased Gas Adjustment Rider for these rate schedules.

The detailed formula for computation of the fixed rate offered in the FRT is contained in the tariff rider attached as Exhibit A and explained in the Pre-Filed Testimony of William H. Novak, Vice President of Regulatory Compliance for Sequent, attached hereto as Exhibit C. To establish this fixed cost, Chattanooga Gas will enter into a fixed rate gas supply contract by October 1 of each year. Chattanooga Gas will assume certain risks as a result of entering into a long term contract. For example, if the gas supply acquired by Chattanooga Gas to meet upcoming demand is inadequate, Chattanooga Gas will have to buy gas on the spot market and bear the risk of any increased costs at the time of these spot market purchases. Therefore, to compensate for such risks, the FRT includes a "risk premium", as discussed in the Pre-Filed Testimony of William Novak.

A new fixed rate will be computed under this formula by October 1 of each year during the three year tariff period. By September 1 of each year, a pro forma of the fixed rate shall be filed with the Authority indicating the market conditions for wholesale gas prices at that time. Although the pro forma will not set forth a guaranteed fixed rate, the Authority will have good indications of the market conditions and the estimated rate thirty days before implementation of the

new annual fixed rate and can use this information as a basis to determine whether it will approve the tariff for the ensuing year.

A pro forma reflecting current market conditions is attached as Exhibit WHN-2 to the Pre-Filed Testimony of William Novak. In this Petition, the Petitioner requests approval of the tariff, which constitutes a formula and a concept. If the Petition is approved, the Petitioner would file a new pro forma on September 1, 2002 reflecting the then current market conditions which would serve as the basis for the Authority to decide whether it should allow the FRT to go into effect for the ensuing year. After reviewing the pro forma filed on September 1, Petitioner requests that the TRA notify Chattanooga Gas by September 25, 2002 if it is going to suspend the FRT for year 1. Under the Petitioner's proposed tariff, a new fixed rate would go into effect in years 2 and 3 unless the Authority acts to halt implementation of the fixed rate by September 25 of such subsequent years. If the TRA suspends the FRT, Chattanooga Gas would revert to its regular Purchased Gas Adjustment pricing mechanism.

5. Petitioner requests that the requirements of the Purchased Gas Adjustment Rule (TRA Rule 1220-4-7) be waived for the affected rate schedules because the fixed rate obviates the need for computing the adjusted rate as set forth in the rule.¹ This waiver would also include waiver of the audit of prudence of gas purchases under Section 1220-4-7-.05 the PGA rule. Any determination of prudence

¹ The TRA has authority to waive its own rules pursuant to TRA Rule 1220-1-1-.05.

of gas costs should be based upon market rates and circumstances at the time Chattanooga Gas enters into the long term gas supply contract.

6. With respect to any Actual Cost Adjustment balances accrued prior to October 1, 2002 pursuant to the PGA Rule, Chattanooga Gas proposes to file a proposal regarding how these balances should be recovered after the TRA completes its audit of these balances.

7. As further support of this proposed tariff, enclosed as Exhibit D is the pre-filed testimony Beverly Wright, an independent consultant regarding the results of focus groups of randomly selected Chattanooga Gas customers regarding their attitudes towards an annual fixed-rate tariff.

8. Both Chattanooga Gas and the Authority shall have the ability to discontinue the FRT upon written notice to the other within thirty (30) days of the October 1 anniversary date for renewal of the tariff. The Authority has an additional opportunity to prevent the fixed rate from going into effect by suspending the tariff by September 25, i.e., 5 days prior to the date the long term contract will be purchased.

WHEREFORE, Petitioner prays:

1. That the Authority approve the tariff attached hereto which establishes an Experimental Fixed Rate PGA Rider for Chattanooga Gas Company effective October 1, 2002.
2. That Petitioners be granted such other and/or further relief as may be warranted.

Respectfully submitted,

Chattanooga Gas Company

By: *D. Billye Sanders*

D. Billye Sanders, Esq.

Waller Lansden Dortch & Davis

A Professional Limited Liability
Company

Nashville City Center

511 Union Street, Suite 2100

Nashville, TN 37219-8966

(615) 244-6380

Attorney for Chattanooga Gas Company


CERTIFICATE OF SERVICE

I hereby certify that on this 5th day of April, 2002, a true and correct copy of the foregoing Petition was served on the persons below by hand delivery or by placing same in the U.S. mail, postage pre-paid:

Consumer Advocate and Protection Division
Office of Attorney General
2nd Floor
425 5th Avenue North
Nashville, Tennessee 37243-0491

Mailing address:

P.O. Box 20207
Nashville, Tennessee 37202



D. Billye Sanders

LIST OF EXHIBITS

- Exhibit A Experimental Fixed Rate PGA Rider
- Exhibit B Pre-filed Testimony of Larry Buie
- Exhibit LB-1: Chattanooga Gas Company monthly rates
 from June 1996 to April 2002
- Exhibit C Pre-filed Testimony of William H. Novak
- Exhibit WHN-1: Experimental Fixed Rate PGA Rider
 (same as Exhibit A)
- Exhibit WHN-2: Pro Forma Fixed Rate PGA Calculation
- Exhibit WHN-3: Computation of PGA and Allocation to
 Rate Classes Based on Volumes
- Exhibit D Pre-filed Testimony of Beverly Wright
- Exhibit BW-1: Market Research Findings from Focus
 Groups
- Exhibit BW-2a: Video tape of 12 noon Focus Group –
 Business Customers
- Exhibit BW-2b: Video tape of 6 p.m. Focus Group –
 Residential Customers
- Exhibit BW-2c:- Video tape of 8 p.m. Focus Group –
 Residential Customers

EXHIBIT A

EXPERIMENTAL FIXED RATE PGA RIDER (Continued)

DETERMINATION OF FIXED RATE

The fixed rate PGA offered under this service shall be set in accordance with the following formula:

$$\left(\frac{\sum_{N_1-N_{12}} [(O_N \times Q_N) + C_1] + \sum_{N_1-N_{12}} [(SI_N \div SQ_N) \times S_N] + [D + C_2] + L}{\sum_{N_1-N_{12}} (V_N)} \right) + PTR + RP$$

Where:

- N** = Month of Fixed PGA Rate.
- O** = Gas Daily NYMEX Future Rate at the Henry Hub.
- C₁** = Projected cost of financial collar between normal and actual volumes purchased.
- Q** = Projected gas wellhead purchases, excluding industrial usage.
- SI** = Projected cost of gas in storage inventory.
- SQ** = Projected volume of gas in storage inventory.
- S** = Projected gas deliveries from storage inventory, excluding industrial usage.
- D** = Projected annual pipeline demand charges, excluding industrial demand.
- C₂** = Projected cost of financial collar between normal and actual volumes sold.
- L** = Projected annual cost of Lost and Unaccounted-for gas.
- V** = Projected sales volumes, excluding industrial usage.
- PTR** = Projected pipeline transportation rate.
- RP** = Risk Premium.

WAIVER OF PRUDENCE AUDITS, ACA AUDITS, AND PGA REQUIREMENTS

Because the Authority has notice of the fixed gas rate to be offered for the next 12 months in advance of its implementation, the prudence of these gas purchases is assumed, and the requirements for prudence audits under Section 1220-4-7-.05 of the Tennessee Regulatory Authority's Purchased Gas Adjustment Rule is waived for these purchases. In addition, because the Company is required to commit to an annual price offering for all consumption in advance, the annual audit of the Company's actual gas costs shall also be waived for the applicable rate schedules, subject to any verification over the accuracy of end-user bills. Finally, because the Company is committing to a one-year price offering, all requirements of the Authority's Purchased Gas Adjustment Rule shall also be waived for the affected rate schedules.

EXPERIMENTAL FIXED RATE PGA RIDER

APPLICABILITY

This Rider shall apply to the Company's Purchased Gas Adjustment Provision for the Residential General Service (Rate Schedule R-1), Multi-Family Housing Service (Rate Schedule R-4) and Commercial and Industrial General Service (Rate Schedule C-1) Rate Schedules. This Rider shall also supersede the Company's regular Purchased Gas Adjustment Rider for these rate schedules at those times when this Rider is in effect.

EXPERIMENTAL PERIOD

This Experimental Rider is effective for a three-year period beginning October 1, 2002 and ending September 30, 2005. This Rider may be discontinued by either the Company or the Authority upon notice 30 days prior to the annual anniversary date of October 1.

INTENT AND APPLICATION

This Rider is intended to provide for all of the gas needs for the covered rate schedules at a fixed rate PGA, regardless of consumption or weather. A new fixed rate PGA will be implemented for a 12 month period on October 1 of each year during the Experimental Period. By September 1 of each year during the Experimental Period, the Company shall make a pro forma rate filing with the Authority reflecting the current market conditions for wholesale gas prices at that point in time. Such filing shall be made in accordance with the formula contained in the Determination of Fixed Rate. Such filing will not be a guarantee of the Fixed Rate offered on October 1, but shall be indicative of the general market conditions at September 1. Unless the Authority acts to stop the Company from implementing this Rider by September 25, the Company will enter into agreements to lock in the price of gas for the next 12 month period beginning October 1. If the TRA acts by September 25 to halt this Fixed Rate PGA Rider, then this Rider will be suspended for the following 12 months, and the Company shall revert to its regular PGA pricing mechanism.

EXHIBIT B

**BEFORE THE TENNESSEE REGULATORY AUTHORITY
NASHVILLE, TENNESSEE**

IN RE:

**PETITION OF CHATTANOOGA GAS
COMPANY FOR APPROVAL OF
CHANGE IN PURCHASED GAS
ADJUSTMENT**

)
)
)
)

DOCKET NO. 02-_____

**PETITION FOR APPROVAL OF CHANGE IN
PURCHASED GAS ADJUSTMENT**

Q. Would you state your name and title for the record?

A. My name is Larry Buie - General Manager, Chattanooga Gas Company ("CGC" or "Company").

Q. Please briefly describe your educational and professional background.

A. I graduated from Mississippi State University in 1977 with a degree in Civil Engineering. Shortly after graduation, I joined Southern Natural Gas Company, where I spent the next 24 years of my career as an Engineer, Project Engineer, Senior Engineer, and Transmission Superintendent. In 2000, I joined Chattanooga Gas Company as General Manager.

Q. What is the purpose of your testimony?

A. The purpose of my testimony is to present an overview of the Company's proposed Fixed Rate PGA Tariff, and to explain how it will benefit the Company's Residential and Small Commercial customers. Mr. Novak will explain the technical aspects of our proposal and how the fixed rate is to be determined. In addition, Ms. Wright will present testimony regarding customer focus groups that she conducted in order to determine how our customers felt about a Fixed Rate PGA.

1 **Q. Please briefly describe the Company's proposed Fixed Rate PGA Tariff.**

2 A. The Company's Fixed Rate PGA Tariff "locks in" the price of gas for the Residential and
3 Small Commercial customers for a one-year period regardless of consumption or
4 weather. In contrast, the Company's regular PGA changes the gas rate for these same
5 customers on a monthly basis, and is dependent on the wholesale gas price that is
6 available in the spot market. While the Company's proposed Fixed Rate PGA does not
7 guarantee a lower total cost to the customer over a twelve month period, it does eliminate
8 the price volatility that has been the source of many complaints to the Company and the
9 Tennessee Regulatory Authority ("TRA" or "Authority").

10 **Q. Why is a Fixed Rate PGA Tariff appealing for Chattanooga's customers?**

11 A. As the Authority is aware, the wholesale gas rate can be extremely volatile. While the
12 Company's base rates can change only upon the action of the Authority, the gas rate is
13 subject to monthly changes in the wholesale gas market. Since the Company's last rate
14 case in 1998, the monthly gas rate has ranged from a low of \$0.319 per hundred cubic
15 feet to \$1.008 per hundred cubic feet last winter as shown on Exhibit LB-1.
16 This wholesale price volatility has been a source of contention with many of our
17 Residential and Small Commercial customers who depend on a stable gas rate to help
18 them budget their energy expenditures. Because this price volatility has such a
19 detrimental effect for so many of our customers, I asked our gas trading affiliate, Sequent
20 Energy Management, LP. ("Sequent"), to examine this problem and determine if a
21 solution could be crafted. The Company's proposed Fixed Rate PGA Tariff, which was
22 developed by Sequent, eliminates this volatility by offering a fixed, stable rate for
23 wholesale gas that will not change over the next 12 months.

1 I have also arranged for an independent consultant, Ms. Beverly Wright, to conduct a
2 series of focus groups to sample how our customers felt about a Fixed Rate PGA. The
3 conclusions of these focus groups confirmed my suspicions that our customers did in fact
4 place a value on price certainty, and that a Fixed Rate PGA mechanism was an
5 appropriate tool to achieve this stability.

6 **Q. How is the Company able to offer a fixed price for gas on a 12-month period when it**
7 **must purchase this gas at market rates?**

8 A. Arrangements for fixed wholesale pricing of gas on a unit basis can be easily arranged,
9 and Mr. Novak, our technical witness on this matter, will speak more to the mechanics of
10 this process. Generally speaking though, the Company has several hedging tools
11 available to it where it can "lock in" or hedge a unit price today for wholesale gas to be
12 delivered over the next twelve months. However in offering this Fixed Rate PGA Tariff,
13 other assumptions must also be made which are not known, such as the individual
14 customer usage and weather.

15 **Q. Why are weather and customer usage important?**

16 A. Because they are unknown variables that will affect the volume of gas consumed. For
17 example, if weather is colder than normal, our customers will generally consume more
18 gas. Likewise, when these same customers either install or change out their existing gas
19 appliances, it can also affect their gas usage.

20 When the Company hedges prices for wholesale gas purchases over a twelve-month
21 period, it must also decide what corresponding volume of gas to hedge.

22 **Q. What would happen if the Company hedges either too much gas or not enough?**

1 A. If the Company hedges too much gas (for example, if weather turns out to be warmer
2 than expected) then it will have to find a market for this gas at a price that could be either
3 lower or higher than the hedged price. Likewise, if the Company does not hedge enough
4 gas (for example, if weather turns out to be colder than expected), it will be forced to go
5 back into the market and purchase additional supplies of gas at a price that may be either
6 higher or lower than the hedged price in order to satisfy the demand for gas from our
7 customers.

8 Because the Company is assuming this risk regarding the correct volume of gas to hedge,
9 we have included a Risk Premium variable in Fixed Rate PGA Tariff formula. The Risk
10 Premium component of the Fixed Rate PGA Tariff formula will be explained more fully
11 by our technical witness.

12 **Q. Did the Company take bids from other suppliers for the Fixed Rate PGA Tariff**
13 **price offering?**

14 A. No. However, we do not foreclose the possibility of accepting bids for this service in the
15 future. At this time, we are only asking the Authority to approve the process for
16 determining a fixed rate. As stated on the Company's proposed tariff, the actual fixed
17 rate (whether calculated by the Company or received from outside bids) will not take
18 place until October.

19 Also, the Company wants to take every effort to make this experimental filing successful.
20 Handing this filing over to an outside, qualified bidder at this time would not necessarily
21 ensure that the successful bidder will take a long-term view to work with the proposed
22 tariff and overcome any obstacles that are unforeseen at this time. In addition, because
23 the Fixed Rate PGA Tariff is being offered at this time by the Company, instead of an

1 outside vender, the TRA Staff will be able to have complete audit rights around each
2 phase of this experimental tariff in order to gauge its success.

3 **Q. If the Company does not take bids for this service, how is the Authority to**
4 **determine whether the fixed price being offered is fair?**

5 A. As explained more fully by Mr. Novak, nearly every component of the Fixed Rate PGA
6 refers to market indexes that can be independently verified and confirmed by the TRA
7 Staff when the Company makes its pro forma filing on September 1.

8 **Q. Did the Company consider offering this service as an option to its regular tariff**
9 **rather than applying it to all existing customers?**

10 A. Yes, we did. Our examination revealed that the cost of changing our computer billing
11 system to manage those customers who chose a fixed rate and others that chose to
12 remain on a variable rate would be prohibitive. In addition, we also found that it would
13 require an extensive customer education campaign as well as additional training and
14 staffing in our call center. Despite all of these costly changes, there was no way to know
15 for certain exactly how many customers would elect this service. Because of these
16 reasons, we abandoned this approach in favor of the Fixed Rate PGA Tariff that we are
17 presenting to the Authority today.

18 **Q. Is this Fixed Rate PGA Tariff being offered to your Industrial customers?**

19 A. No. The Company's Industrial customers (Rate Schedules I-1, L-1, T-1 and T-2) already
20 have options available to let them hedge gas on an individual basis if they so desire.

21 **Q. Do you have any other comments?**

22 A. Yes. I would urge the Authority to approve the Company's proposed tariff. In the pro
23 forma analysis contained in Exhibit WHN-2, the proposed tariff produced a gas rate that

1 is approximately 40%¹ less than the peak rate charged to our customers last winter. In
2 addition, it removes price volatility for the customer, and eases the auditing requirements
3 for the Authority Staff.

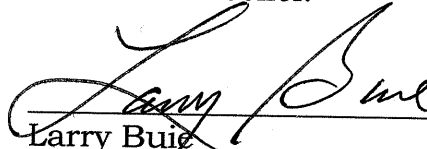
4 **Q. Does this complete your testimony?**

5 **A.** Yes, it does.

¹ $(1.0080 - .6092)/1.0080 = 39.56\%$ as shown on Exhibits LB-1 and WHN-2.

VERIFICATION

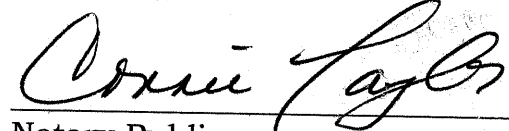
I, Larry Buie, declare under penalty of perjury that I am authorized by Chattanooga Gas Company to testify on its behalf, that I have caused the foregoing written testimony to be prepared on my behalf, that I have read the foregoing testimony and that the statements contained therein are true and correct to the best of my knowledge, information and belief.



Larry Buie
General Manager
Chattanooga Gas Company

STATE OF TENNESSEE)
)
COUNTY OF HAMILTON)

Sworn to and subscribed before me this 3 day of April,
2002.



Notary Public
My Commission
Expires: April 2, 2004



CHATTANOOGA GAS COMPANY

Year	Month	Firm PGA (\$/ccf)	Year	Month	Firm PGA (\$/ccf)
1996	July	0.3687	2000	January	0.4928
	August	0.3900		February	0.4369
	September	0.3746		March	0.4369
	October	0.3351		April	0.4769
	November	0.3392		May	0.4769
	December	0.3523		June	0.4860
1997	January	0.4228		July	0.5862
	February	0.5234		August	0.5862
	March	0.4584		September	0.5484
	April	0.3630		October	0.5484
	May	0.3630		November	0.6888
	June	0.4145		December	0.7814
	July	0.4470	2001	January	0.7814
	August	0.4470		February	1.0080
	September	0.4534		March	0.8000
	October	0.4534		April	0.6671
	November	0.4534		May	0.6467
	December	0.4936		June	0.6220
1998	January	0.4936		July	0.5330
	February	0.4936		August	0.4987
	March	0.3531		September	0.5082
	April	0.3531		October	0.5082
	May	0.3531		November	0.5082
	June	0.3531		December	0.4861
	July	0.3190	2002	January	0.4861
	August	0.3190		February	0.4861
	September	0.3190		March	0.4192
	October	0.3629		April	0.6110
	November	0.3525			
	December	0.3525			
1999	January	0.3525			
	February	0.3525			
	March	0.3525			
	April	0.3525			
	May	0.3423			
	June	0.3423			
	July	0.3676			
	August	0.3676			
	September	0.4164			
	October	0.4418			
	November	0.4551			
	December	0.4928			

EXHIBIT C

**BEFORE THE TENNESSEE REGULATORY AUTHORITY
NASHVILLE, TENNESSEE**

IN RE:

**PETITION OF CHATTANOOGA GAS
COMPANY FOR APPROVAL OF
CHANGE IN PURCHASED GAS
ADJUSTMENT**

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DOCKET NO. 02-_____

**PETITION FOR APPROVAL OF CHANGE IN
PURCHASED GAS ADJUSTMENT**

Q. Please state your name and give your business address.

A. My name is William H. Novak, and my business address is 1219 Caroline Street, Atlanta, Georgia 30307.

Q. By whom are you employed, and in what capacity?

A. I am the Vice President of Regulatory Compliance for Sequent Energy Management, LP ("Sequent"). Sequent is a wholesale gas trading and optimization company with offices in Atlanta, Georgia and Houston, Texas. Sequent is a subsidiary of AGL Resources, and an affiliate of Chattanooga Gas Company ("CGC" or "Company").

Q. Please describe your education, background and business experience.

A. I have both a Bachelors degree in Business Administration with a major in Accounting, and a Masters degree in Business Administration with a major in Economics from Middle Tennessee State University. I have served as the vice-chairman on the National Association of Regulatory Utility Commissioner's ("NARUC") Subcommittee on Gas. In addition, I am both licensed to practice as a Certified Public Accountant in Tennessee, and a member of the American Institute of Certified Public Accountants.

1 My work experience has centered around regulated utilities for over twenty years. Before
2 coming to Georgia in 1999, I was Chief of the Energy and Water Division of the
3 Tennessee Regulatory Authority ("TRA" or "Authority") where I had either presented
4 testimony or advised the Authority on a host of regulatory issues for approximately 18
5 years. In 1999, I accepted a position with AGL Resources as Director of Rates &
6 Regulatory Analysis, which involved the supervision over the performance of the
7 company's regulated utility operations as well as proposing rate adjustments to achieve
8 this performance. In 2001, I was named to my current position with Sequent, where I am
9 responsible for all aspects of the Company's regulatory requirements.

10 **Q. What is the purpose of your testimony?**

11 A. I was asked by CGC to assist them with this filing and I am presenting this testimony on
12 their behalf. The purpose of my testimony is to describe the components of the
13 Experimental Fixed Rate PGA Tariff proposed by CGC, and how these components are
14 calculated.

15 **Q. Please explain the Fixed Rate PGA formula contained in Exhibit WHN-1.**

16 A. The Fixed Rate PGA formula is designed to work in somewhat similar fashion to the
17 Authority's existing PGA rule with the forecasted costs and volumes producing a gas rate
18 to be charged to CGC's customers. However, unlike the Company's existing PGA Rider,
19 the proposed Fixed Rate PGA Rider contains a risk premium (RP) to compensate for the
20 risks assumed by the Company that could not be separately identified in making this tariff
21 available.

22 The Fixed Rate PGA Tariff formula proposed by the Company reads as follows:

$$\left(\frac{\sum_{N_1-N_{12}} [(O_N \times Q_N) + C_1] + \sum_{N_1-N_{12}} [(SI_N \div SQ_N) \times S_N] + [D + C_2] + L}{\sum_{N_1-N_{12}} (V_N)} \right) + PTR + RP$$

The first part of the formula aggregates the projected monthly commodity, storage demand and lost and unaccounted-for gas costs in the numerator, and then divides this projected annual cost by the annual projected sales volumes in the denominator. This produces the weighted average expected rate that the Company anticipates it will be able to deliver to its customers. The second part of the formula adds in the projected interstate pipeline transportation rate. Finally, the third part of the formula adds in a Risk Premium. I will now discuss each of these components separately.

Q. Please explain the projected commodity cost component of the formula.

A. The projected commodity cost in the formula is designated as follows:

$$\sum_{N_1-N_{12}} [(O_N \times Q_N) + C_1]$$

In this piece of the equation, the variable O_N represents the future rate at which gas can be purchased at the Henry Hub, which is the standard on New York Mercantile Exchange for natural gas futures, in a particular month. The variable Q_N represents the projected volume of wellhead gas that the Company expects to purchase in a particular month under normal weather conditions. These projected wellhead purchases are contained in Exhibit WHN-2, of the Company's filing, and are derived from an analysis of previous volumes consumed by the company's residential and commercial customers under normal weather conditions. To find the expected annual commodity cost under normal weather conditions, the monthly projected wellhead purchases are multiplied by the

1 monthly NYMEX future price at the Henry Hub for each month of the year that the Fixed
2 Rate PGA Tariff will be in effect, and the totals for each month are summed.

3 As stated above, the projected gas purchases for residential and commercial customers
4 (represented by the variable Q_N) are based on normal weather conditions. Because the
5 residential and commercial sales volumes are so heavily dependent on weather
6 conditions, I have included a financial “collar” around them, designated by the variable
7 C_I , in order to hedge these volumes for the difference between normal and actual
8 weather.

9 **Q. Please explain how this collar works.**

10 A. If weather during the year can be accurately predicted, then estimating the residential and
11 commercial gas usage can be done with a very high degree of reliability. We have
12 calculated CGC’s monthly sales volumes for the residential and commercial classes
13 assuming normal weather conditions that are based on average weather for the past thirty
14 (30) years. However, these normal weather conditions rarely occur. A range of possible
15 gas usage can also be obtained through an analysis of warm and cold winter periods that
16 have occurred over this same thirty year period, and then applying these weather
17 conditions to the expected usage per customer. We have performed this analysis, which
18 produced the following results:

Scenario	Projected Residential and Commercial Purchases	Percentage Deviation from Normal
Warm Winter	7.17 Dt	21.3%
Normal Winter	9.11 Dt	0.0%
Cold Winter	11.0 Dt	20.7%

1 Because weather represents such a large unknown variable for gas utilities that cannot be
2 accurately predicted, we have used a collar to deal with the unknown difference between
3 the actual and normal weather conditions.

4 The collar is a financial instrument, representing a series of monthly *Puts* and *Calls*, that
5 can be purchased from various gas brokers. A *Put* represents the right to sell gas at a
6 specified price at a future point in time. Conversely, a *Call* represents the right to
7 purchase gas at a specified price at a future point in time. By purchasing a series of *Puts*
8 for the difference between the Warm and Normal Winter Scenarios and another series of
9 *Calls* for the difference between the Cold and Normal Winter Scenarios, we have the
10 ability to hedge or "lock-in" the price for all gas purchased. The C_I variable in the
11 Commodity Cost component of the Fixed Rate PGA formula represents the cost of
12 securing the price (referred to as a collar) in order to lock in the range of gas volumes that
13 can be consumed by Chattanooga's residential and commercial customers, and is shown
14 on Exhibit WHN-2.

15 **Q. Please explain the projected storage cost component of the formula.**

16 **A.** The projected storage cost in the formula is designated as follows:

$$\sum_{N_1-N_{12}} [(SI_N \div SQ_N) \times S_N]$$

17 In this piece of the equation, the variable SI_N represents the inventory value of the gas in
18 storage in a particular month, and SQ_N represents the total volume of gas in storage in a
19 particular month. When SI_N is divided by SQ_N , it produces a weighted average cost of
20 gas (WACOG) in storage for that particular month. This weighted average cost of gas in
21 storage is then multiplied by S_N , which represents the projected deliveries from storage
22 for that same month to give the total cost for gas delivered from storage for a particular
23 month. Summing the monthly projected storage costs for each month of the twelve

1 months that the Fixed Rate PGA Tariff will be in effect gives the expected annual storage
2 cost as shown on Exhibit WHN-2.

3 **Q. Please explain the projected demand cost component of the formula.**

4 A. The projected demand cost in the formula is designated as follows:

$$[D + C_2]$$

5 The projected demand cost allocated to residential and commercial customers is
6 designated by the variable D in the formula. This is the same annual demand cost that the
7 company includes in its existing PGA, and covers the capacity costs to bring gas to
8 Chattanooga. The variable C_2 represents the cost of obtaining a financial collar to guard
9 against the effects of weather on the recovery of demand cost. These two variables are
10 then combined to produce the total projected annual demand cost as shown on Exhibit
11 WHN-2.

12 **Q. Hasn't the Company already considered the cost of a financial collar in the**
13 **calculation of the projected commodity cost? If so, doesn't including the collar here**
14 **a second time allow double recovery of this cost?**

15 A. No. The cost of a financial collar is included in the projected annual commodity cost as
16 discussed above, in order to hedge the risks of weather on the amount of gas that must be
17 purchased. A similar but separate financial collar is included here in order to hedge the
18 risks of weather on demand costs. Demand cost represents a fixed contractual obligation
19 that the Company has with its interstate pipelines. While the total annual demand
20 contract costs are known, the projected sales volumes over which they will be recovered
21 are not. If weather is colder than normal, then more gas will likely have been sold, and
22 the Company will over-recover its demand cost. Likewise, if weather is warmer than
23 normal, less gas will have been sold, and the Company will under-recover its demand

1 cost. Under the current PGA rule, any over or under collected costs are trued-up
2 annually. However, there is no such true-up mechanism under the Company's proposed
3 Fixed Rate PGA. Adding the financial collar (C_2) weather variable to the demand cost
4 assures the TRA that the Company will only recover its actual contractual demand cost.

5 **Q. Please explain the projected Lost and Unaccounted-For Gas component of the**
6 **formula.**

7 A. The projected lost and Unaccounted-For Gas component is designated by the variable L
8 in the Fixed Rate PGA formula. This is the same cost that is inherent in the Company's
9 existing PGA mechanism. Lost and Unaccounted-For gas represents the differences
10 between gas that is brought into the Company's distribution system and gas that is
11 metered at the customers' premises. These differences can occur for a variety of reasons,
12 but are primarily due to main and service line leaks and gas theft. Because we are
13 offering a guaranteed price per unit for gas to each customer's meter, it is important to
14 include the cost for lost and unaccounted-for gas in the Fixed Rate PGA formula as
15 shown on Exhibit WHN-2.

16 **Q. Please explain the projected sales volume component in the formula.**

17 A. The projected sales volume is designated by the variable V in the formula, and represents
18 the Company's projected annual sales to the residential and small commercial customers
19 during normal weather conditions and is calculated on Exhibit WHN-2.

20 **Q. Please explain the projected Pipeline Transportation Rate component in the**
21 **formula.**

22 A. The projected Pipeline Transportation Rate is designated by the variable PTR in the
23 formula, and represents the transportation rate projected to be approved by the Federal

1 Energy Regulatory Commission ("FERC"). The Pipeline Transportation Rate is designed
2 to cover the cost for interstate pipelines to move gas from the wellhead to Chattanooga.
3 The Pipeline Transportation Rate is also already included in the Company's existing PGA
4 Rider approved by the Authority.

5 **Q. Please explain the Risk Premium component in the formula.**

6 A. The Risk Premium is designated by the variable *RP* in the formula, and represents the
7 cost for risks that are assumed by the Company in offering a Fixed Rate PGA that cannot
8 be practically identified on a separate basis.

9 **Q. What are the risks that will be assumed by the Company?**

10 A. There are several risk burdens that are currently recovered automatically through the
11 PGA process that will now be transferred to the Company's affiliate in order to make the
12 Fixed Rate PGA feasible. Many of these risks are difficult to quantify as a separate
13 component of the Fixed Rate PGA, since their magnitude and probability of occurrence
14 are unknown.

15 For example, one aspect of the current PGA mechanism is that a certain amount of
16 demand costs are assigned to firm industrial customers on the I-1 and T-2 tariffs, with the
17 remainder of these capacity costs allocated to the Residential and Commercial customers.

18 An example of this allocation from our latest PGA filing is provided on Exhibit WHN-3.

19 If a firm industrial customer leaves the Chattanooga distribution system for any reason or
20 converts to an interruptible rate schedule, then their demand cost is automatically
21 allocated back to the residential and commercial customers under the current PGA rule.

22 However, under the Fixed Rate PGA, there is no mechanism to adjust residential and

1 commercial rates for any change in Industrial demand, and the Company's affiliate will
2 remain at risk for any reduction in firm industrial capacity.

3 Another example of risk can be found in the interstate transportation, storage and
4 capacity rates approved by the Federal Energy Regulatory Commission ("FERC").
5 Under the current PGA rule, if these rates are changed by the FERC, then the new cost is
6 passed through to the Company's customers and the costs recovered. However, under the
7 Fixed Rate PGA, there will be no cost recovery for any change in these rates, and the
8 Company's affiliate will again remain at risk for these changes.

9 There are other risks involved beyond these two examples. All of these risks generally
10 involve removing the Company's ability to automatically pass through any change in
11 their gas costs to their customers as allowed under the current PGA rule. While the
12 probability of these risks materializing is relatively low when compared with the
13 identified components in the Fixed Rate PGA formula, their effect can be substantial.
14 Because of this it is very difficult to quantify the Risk Premium component of the Fixed
15 Rate PGA.

16 **Q. How did the Company determine the rate for the Risk Premium?**

17 A. The Company internally considered the risks described above for this tariff that it feels it
18 will be required to absorb over the plan year. After considering several methods for
19 determining this risk, we are proposing to use the utility's authorized rate of return of
20 9.08% and applying it to all other costs identified in the Fixed Rate PGA. When this rate
21 is applied to the Fixed Rate PGA, it produces a current Risk Premium of approximately
22 \$0.05 per Ccf as shown on Exhibit WHN-2. This Risk Premium is also substantially less
23 than the \$0.12 per Ccf that the Company proposed in its original filing last year.

1 **Q. What is the alternative for the Authority if it disagrees with the Risk Premium**
2 **required by the Company?**

3 A. The pro forma Risk Premium rate required by the Company for the upcoming plan year
4 will be filed on September 1st of each year to be effective on October 1st. If the Authority
5 disagrees with the Risk Premium required by the Company, or any other element of the
6 Company's Fixed Rate PGA calculation, the tariff is structured to allow for suspension
7 until the next plan year as shown on Exhibit WHN-1.

8 **Q. Many of the variables in the fixed rate formula include projections on wellhead**
9 **purchases, storage injections, storage withdrawals, and sales volumes. How are**
10 **these projections made?**

11 A. After adjusting for weather and taking customer growth into account, the usage for the
12 residential and small commercial class has proven to be fairly predictable. While weather
13 is the single largest risk that the Company has to absorb in offering this tariff as described
14 above, we have produced a consolidated analysis for our projection of wellhead gas
15 purchases, storage injections, storage withdrawals, and sales volumes that takes a
16 projection of normal weather into account. The projection of these volumes has been
17 included in our filing on Exhibit WHN-2.

18 **Q. How and when will the commodity price be determined?**

19 A. Between September 25th and October 1st, the Company will enter the market and acquire
20 the volumes listed in Exhibit WHN-2, barring any force majeure situation (tornado,
21 hurricane, explosion or other natural or mechanical disaster) occurring in the gulf or other
22 production areas. Once the volumes have been acquired, we will calculate the final fixed
23 price and provide it to the Authority along with the commodity prices that were obtained

1 for October 2002 through September 2003. We will also provide the Authority with a
2 copy of the supplier's confirmation sheet for the wellhead gas purchased. This
3 confirmation will indicate the volumes that were fixed at a specific price per month.

4 **Q. How can the Authority determine that the future commodity price contract is**
5 **indicative of the current market rate?**

6 **A.** The gas market is very volatile and changes by the minute. An attractive price at 10:00
7 AM may be an unattractive price at 11:00 AM. On a daily basis, various publications
8 provide data on the range of gas commodity trades that occur on the New York
9 Mercantile Exchange on a particular day. These ranges provide the lowest and highest
10 price paid for gas commodity for a future month. *Gas Daily* is one such publication,
11 which reports the daily high and low prices for natural gas trades at the Henry Hub for
12 the proceeding 36 months. The price for volumes procured by the Company for the
13 period October 2002 through September 2003 should be between the low and the high for
14 the day that the trade occurred, and can be confirmed by the TRA's Staff.

15 **Q. Will fixing prices guarantee that customers will pay the lowest possible cost for the**
16 **next 12 months?**

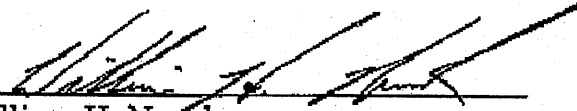
17 **A.** No. Fixing the price for natural gas provides the customer with a known price for service
18 over the next 12 month period. It does not guarantee the lowest cost.

19 **Q. Does this conclude your testimony?**

20 **A.** Yes, it does.

VERIFICATION

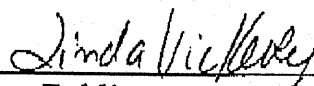
I, William H. Novak, declare under penalty of perjury that I am authorized by Sequent Energy Management, LP to testify on its behalf, that I have caused the foregoing written testimony to be prepared on my behalf, that I have read the foregoing testimony and that the statements contained therein are true and correct to the best of my knowledge, information and belief.



William H. Novak
Vice President of
Regulatory Compliance
Sequent Energy Management, LP

STATE OF GEORGIA)
COUNTY OF Gwinnett)

Sworn to and subscribed before me this 8 day of April, 2002.



Notary Public
My Commission Expires: _____

Notary Public
Gwinnett County, Georgia
My Commission Expires Mar. 13, 2006

EXPERIMENTAL FIXED RATE PGA RIDER

APPLICABILITY

This Rider shall apply to the Company's Purchased Gas Adjustment Provision for the Residential General Service (Rate Schedule R-1), Multi-Family Housing Service (Rate Schedule R-4) and Commercial and Industrial General Service (Rate Schedule C-1) Rate Schedules. This Rider shall also supersede the Company's regular Purchased Gas Adjustment Rider for these rate schedules at those times when this Rider is in effect.

EXPERIMENTAL PERIOD

This Experimental Rider is effective for a three-year period beginning October 1, 2002 and ending September 30, 2005. This Rider may be discontinued by either the Company or the Authority upon notice 30 days prior to the annual anniversary date of October 1.

INTENT AND APPLICATION

This Rider is intended to provide for all of the gas needs for the covered rate schedules at a fixed rate PGA, regardless of consumption or weather. A new fixed rate PGA will be implemented for a 12 month period on October 1 of each year during the Experimental Period. By September 1 of each year during the Experimental Period, the Company shall make a proforma rate filing with the Authority reflecting the current market conditions for wholesale gas prices at that point in time. Such filing shall be made in accordance with the formula contained in the Determination of Fixed Rate. Such filing will not be a guarantee of the Fixed Rate offered on October 1, but shall be indicative of the general market conditions at September 1. Unless the Authority acts to stop the Company from implementing this Rider by September 25, the Company will enter into agreements to lock in the price of gas for the next 12 month period beginning October 1. If the TRA acts by September 25 to halt this Fixed Rate PGA Rider, then this Rider will be suspended for the following 12 months, and the Company shall revert to its regular PGA pricing mechanism.

EXPERIMENTAL FIXED RATE PGA RIDER (Continued)

DETERMINATION OF FIXED RATE

The fixed rate PGA offered under this service shall be set in accordance with the following formula:

$$\left(\frac{\sum_{N_1-N_{12}} [(O_N \times Q_N) + C_1] + \sum_{N_1-N_{12}} [(SI_N \div SQ_N) \times S_N] + [D + C_2] + L}{\sum_{N_1-N_{12}} (V_N)} \right) + PTR + RP$$

Where:

- N = Month of Fixed PGA Rate.
- O = Gas Daily NYMEX Future Rate at the Henry Hub.
- C₁ = Projected cost of financial collar between normal and actual volumes purchased.
- Q = Projected gas wellhead purchases, excluding industrial usage.
- SI = Projected cost of gas in storage inventory.
- SQ = Projected volume of gas in storage inventory.
- S = Projected gas deliveries from storage inventory, excluding industrial usage.
- D = Projected annual pipeline demand charges, excluding industrial demand.
- C₂ = Projected cost of financial collar between normal and actual volumes sold.
- L = Projected annual cost of Lost and Unaccounted-for gas.
- V = Projected sales volumes, excluding industrial usage.
- PTR = Projected pipeline transportation rate.
- RP = Risk Premium.

WAIVER OF PRUDENCE AUDITS, ACA AUDITS, AND PGA REQUIREMENTS

Because the Authority has notice of the fixed gas rate to be offered for the next 12 months in advance of its implementation, the prudence of these gas purchases is assumed, and the requirements for prudence audits under Section 1220-4-7-.05 of the Tennessee Regulatory Authority's Purchased Gas Adjustment Rule is waived for these purchases. In addition, because the Company is required to commit to an annual price offering for all consumption in advance, the annual audit of the Company's actual gas costs shall also be waived for the applicable rate schedules, subject to any verification over the accuracy of end-user bills. Finally, because the company is committing to a one-year price offering, all requirements of the Authority's Purchased Gas Adjustment Rule shall also be waived for the affected rate schedules.

Chattanooga Gas Company
Pro Forma Fixed Rate PGA Calculation

Exhibit WHN-2

Page 1 of 6

Line No.		Amount	
1	Commodity Cost Component	\$24,891,557	A/
2	Storage Cost Component	9,451,400	B/
3	Demand Cost Component	11,982,620	C/
4	Lost & Unaccounted-For Gas Cost Component	1,241,242	D/
5	Total Gas Cost	\$47,566,820	
6	Projected Sales Volumes (Dkt)	8,769,033	E/
7	Gas Cost Rate per Dkt	\$5.4244	
8	Pipeline Transportation Rate per Dkt	0.0600	F/
9	Delivered Cost per Dkt	\$5.4844	
10	Delivered Cost per Ccf	0.5649	G/
11	Risk Premium per Ccf	0.0513	H/
12	Fixed Rate PGA per Ccf	\$0.6162	

NOTE: Pro forma results based on market conditions at March 1, 2002.

A/ Exhibit WHN-2, Page 2.

B/ Exhibit WHN-2, Page 3.

C/ Exhibit WHN-2, Page 4.

D/ Exhibit WHN-2, Page 5.

E/ Exhibit WHN-2, Page 6.

F/ Weighted Average of Pipeline Rates for E. TN/TN and Southern Natural Gas

G/ Average BTU rate of 3.0%.

H/ Approved overall rate of return is 9.08%.

Chattanooga Gas Company
Pro Forma Fixed Rate PGA Calculation
Commodity Cost Component Calculation

Exhibit WHN-2

Page 2 of 6

Line No.		Projected Wellhead Supply (Dkt) A/	Projected Wellhead Rate B/	Projected Wellhead Cost
1	October, 2002	314,147	\$2.807	\$881,811
2	November	665,139	3.062	2,036,656
3	December	1,211,874	3.317	4,019,786
4	January, 2003	1,447,010	3.427	4,958,903
5	February	877,337	3.362	2,949,607
6	March	760,889	3.252	2,474,411
7	April	384,739	3.102	1,193,460
8	May	246,557	3.107	766,053
9	June	238,603	3.154	752,554
10	July	246,557	3.194	787,503
11	August	246,557	3.234	797,365
12	September	238,603	3.233	771,403
13	Total	6,878,012		\$22,389,512
14	Weather Collar			\$2,502,045 C/
15	Total Commodity Cost			\$24,891,557

NOTE: Pro forma results based on market conditions at March 1, 2002.

A/ Exhibit WHN-2, Page 6.

B/ Source: Company Worksheets

C/ Source: Company Worksheets

Chattanooga Gas Company
Pro Forma Fixed Rate PGA Calculation
Storage Cost Component Calculation

Exhibit WHN-2
Page 3 of 6

Line No.		Beginning Inventory			Injections B/			Withdrawals C/			Ending Inventory		
		Volume	Rate	Amount	Volume	Rate	Amount	Volume	Rate	Amount	Volume	Rate	Amount
1	October, 2002	3,118,556	\$3.717	\$11,591,716 A/	0	\$2.807	\$0	306,935	\$3.717	\$1,140,882	2,811,621	\$3.717	\$10,450,834
2	November	2,811,621	3.717	10,450,834	0	3.062	0	332,919	3.717	1,237,465	2,478,702	3.717	9,213,370
3	December	2,478,702	3.717	9,213,370	0	3.317	0	384,087	3.717	1,427,657	2,094,615	3.717	7,785,713
4	January, 2003	2,094,615	3.717	7,785,713	0	3.427	0	480,138	3.717	1,784,680	1,614,477	3.717	6,001,033
5	February	1,614,477	3.717	6,001,033	0	3.362	0	462,185	3.717	1,717,948	1,152,292	3.717	4,283,085
6	March	1,152,292	3.717	4,283,085	0	3.252	0	275,863	3.717	1,025,387	876,429	3.717	3,257,699
7	April	876,429	3.717	3,257,699	500,000	3.102	1,551,000	183,800	3.717	683,187	1,192,629	3.459	4,125,512
8	May	1,192,629	3.459	4,125,512	500,000	3.107	1,553,500	33,001	3.459	114,156	1,659,628	3.353	5,564,855
9	June	1,659,628	3.353	5,564,855	500,000	3.154	1,577,000	21,000	3.353	70,415	2,138,628	3.307	7,071,441
10	July	2,138,628	3.307	7,071,441	500,000	3.194	1,597,000	21,700	3.307	71,752	2,616,928	3.285	8,596,689
11	August	2,616,928	3.285	8,596,689	520,000	3.234	1,681,680	21,700	3.285	71,285	3,115,228	3.277	10,207,084
12	September	3,115,228	3.277	10,207,084	0	3.233	0	32,531	3.277	106,588	3,082,697	3.277	10,100,496
13	Total				2,520,000		\$7,960,180	2,555,859		\$9,451,400			

NOTE: Pro forma results based on market conditions at March 1, 2002.

A/ Source: Company Worksheets
B/ Source: Company Worksheets
C/ Exhibit WHN-2, Page 6.

Chattanooga Gas Company
Pro Forma Fixed Rate PGA Calculation
Demand Cost Component Calculation

Exhibit WHN-2

Page 4 of 6

Line No.		Projected Demand Cost	A/
1	October, 2002	\$936,885	
2	November	936,885	
3	December	936,885	
4	January, 2003	936,885	
5	February	936,885	
6	March	936,885	
7	April	936,885	
8	May	936,885	
9	June	936,885	
10	July	936,885	
11	August	936,885	
12	September	936,885	
13	Total	\$11,242,620	
14	Weather Collar	740,000	B/
15	Total Commodity Cost	\$11,982,620	

NOTE: Pro forma results based on market conditions at March 1, 2002.

A/ Source: Company Worksheets

B/ Source: Company Worksheets

Chattanooga Gas Company
Pro Forma Fixed Rate PGA Calculation
Lost & Unaccounted-For Cost Component Calculation

Exhibit WHN-2
Page 5 of 6

Line No.		Projected Wellhead Cost A/	Projected Storage Cost B/	Total Delivery Cost	Projected Citygate Sendout (Dkt) C/	Average Send Out Rate	Projected Lost & Unacct Volumes (Dkt) C/	Projected Lost & Unacct Cost
1	October, 2002	\$881,811	\$1,140,882	\$2,022,692	577,242	\$3.504	22,502	\$78,850
2	November	2,036,656	1,237,465	3,274,120	927,133	3.531	36,142	127,634
3	December	4,019,786	1,427,657	5,447,443	1,482,139	3.675	57,778	212,356
4	January, 2003	4,958,903	1,784,680	6,743,583	1,789,553	3.768	69,761	262,883
5	February	2,949,607	1,717,948	4,667,555	1,244,037	3.752	48,496	181,954
6	March	2,474,411	1,025,387	3,499,798	963,073	3.634	37,543	136,431
7	April	1,193,460	683,187	1,876,648	529,553	3.544	20,643	73,157
8	May	766,053	114,156	880,209	260,754	3.376	10,165	34,313
9	June	752,554	70,415	822,968	242,170	3.398	9,440	32,081
10	July	787,503	71,752	859,255	250,242	3.434	9,755	33,496
11	August	797,365	71,285	868,651	250,242	3.471	9,755	33,862
12	September	771,403	106,588	877,992	252,896	3.472	9,859	34,226
13	Total	\$22,389,512	\$9,451,400	\$31,840,913	8,769,033		341,840	\$1,241,242

NOTE: Pro forma results based on market conditions at March 1, 2002.

A/ Exhibit WHN-2, Page 2.

B/ Exhibit WHN-2, Page 3.

C/ Exhibit WHN-2, Page 6.

Chattanooga Gas Company
Pro Forma Fixed Rate PGA Calculation
Sales and Supply Volume Reconciliation

Exhibit WHN-2
Page 6 of 6

Line No.		Sales					Lost and Unact-For Usage (Dkt)	C/	Projected Gross Usage (Dkt)	Projected Wellhead Supply (Dkt)	D/	Projected Storage Supply (Dkt)	E/	Projected Total Supply (Dkt)
		Projected Residential Usage (Dkt)	A/	Projected Commercial Usage (Dkt)	B/	Projected Net Usage (Dkt)								
1	October, 2002	242,441		334,801		577,242	22,502		599,744	314,147		306,935		599,744
2	November	482,109		445,024		927,133	36,142		963,275	665,139		332,919		963,275
3	December	829,998		652,141		1,482,139	57,778		1,539,917	1,211,874		384,087		1,539,917
4	January, 2003	966,359		823,194		1,789,553	69,761		1,859,314	1,447,010		480,138		1,859,314
5	February	597,138		646,899		1,244,037	48,496		1,292,533	877,337		462,185		1,292,533
6	March	500,798		462,275		963,073	37,543		1,000,616	760,889		275,863		1,000,616
7	April	264,776		264,776		529,553	20,643		550,196	384,739		183,800		550,196
8	May	104,302		156,452		260,754	10,165		270,919	246,557		33,001		270,919
9	June	87,181		154,988		242,170	9,440		251,610	238,603		21,000		251,610
10	July	95,092		155,150		250,242	9,755		259,997	246,557		21,700		259,997
11	August	77,575		172,667		250,242	9,755		259,997	246,557		21,700		259,997
12	September	85,985		166,911		252,896	9,859		262,755	238,603		32,531		262,755
13	Total	4,333,755		4,435,278		8,769,033	341,840		9,110,873	6,878,012		2,555,859		9,110,873
14	Gas losses as a percentage of delivered volumes: 3.75%													

A/ Source: Company Worksheets
B/ Source: Company Worksheets
C/ Source: Company Worksheets
D/ Source: Company Worksheets
E/ Source: Company Worksheets

CHATTANOOGA GAS COMPANY
COMPUTATION OF PURCHASED GAS ADJUSTMENT AND
ALLOCATION TO RATE CLASSES BASED ON VOLUMES FOR

RATES TO BE EFFECTIVE: April 1, 2002

Rate Schedule	CURRENT GAS COST			CURRENT LEVEL OF GAS COST/MCF		
	<u>Monthly</u> <u>Contract</u> <u>Demand</u>	<u>Annual</u> <u>Commodity</u> <u>MCF Sales</u>	<u>Demand</u>	<u>Commodity</u>	<u>Total</u>	<u>(D)</u> <u>(D)</u> <u>(P)</u>
I-1	9,033	625,370	780,252	2,854,357	3,634,609	7.1981
L-1		223,253		1,152,991	1,152,991	
T-2**	0		0		0	7.1981
ALL OTHER	133,000	7,286,935	11,488,152	33,259,528	44,747,680	
V-1						
Total Cost Adjustment	142,033	8,135,558	12,268,404	37,266,875	49,535,279	

100% LOAD FACTOR
DEMAND COST/MCF

* Total Demand Cost = Total Firm Cost /
142033 x 365 Days @ \$0.2366

Unit Cost bases 108,397 annual contract demand units

**All Demand Units for I-1/T-2 Customers are billed under the I-1 rate

EXHIBIT D

**BEFORE THE TENNESSEE REGULATORY AUTHORITY
NASHVILLE, TENNESSEE**

IN RE:

**PETITION OF CHATTANOOGA GAS
COMPANY FOR APPROVAL OF
CHANGE IN PURCHASED GAS
ADJUSTMENT**

)
)
)
)

DOCKET NO. 02-_____

**PETITION FOR APPROVAL OF CHANGE IN
PURCHASED GAS ADJUSTMENT**

1 **Q. Would you state your name for the record?**

2 **A. My name is Beverly Wright.**

3 **Q. Please briefly describe your educational and professional background.**

4 **A. I have a bachelor's degree in Decision Sciences, a Master of Science degree in Analytical**
5 **Methods and I am a candidate for a PhD in Marketing Research, all from Georgia State**
6 **University. I have 8 years of utility experience including 7 years working for AGL**
7 **Resources and its affiliates in areas including Rates and Marketing Research and 1 year**
8 **working for Southern Company in the area of Marketing Research. My regulatory**
9 **experience ended in 1994 when I moved to the marketing research and analysis arena.**
10 **My experiences in marketing research have allowed me to view and conduct focus**
11 **groups in support of various business decisions. I taught Decision Sciences and**
12 **Management classes for 2 years at Berry College and Georgia State University. My**
13 **teaching experiences have allowed me to educate others on the focus group technique for**
14 **business problem solving and decision-making. I am a full-time PhD candidate and I**
15 **currently consult on a part-time basis. My pursuit of a PhD in marketing requires that I**

1 study a plethora of market research techniques and strategies for obtaining consumer
2 attitudes and opinions.

3 **Q. What is the purpose of your testimony?**

4 A. I was requested by Chattanooga Gas Company ("CGC" or "Company") to perform a
5 series of customer focus groups for the purpose of obtaining attitudes of Residential and
6 Small Commercial customers towards the Company adopting an annual fixed-rate
7 purchased gas adjustment factor. The purpose of my testimony is to present to the
8 Tennessee Regulatory Authority ("TRA" or "Authority") details of the analysis
9 performed by myself in conducting the three focus groups requested by the Company. I
10 will also present my resulting conclusions to the Authority from these focus groups.

11 **Q. Please describe the nature and purpose of a focus group.**

12 A. As published by the American Marketing Association, a focus group is a form of
13 qualitative research and a means of obtaining opinions related to a specific topic. Focus
14 groups should be conducted in a free-flowing, loosely structured manner using a focus
15 group moderator, usually external to the organization sponsoring the focus groups.
16 Groups typically consist of eight to twelve people with some common characteristic.
17 One of the most common reasons for focus group research includes testing new concepts.
18 Focus group research should not be used to determine specific percentages and exact
19 measurements of opinions. (Holly Edmunds, www.marketingpower.com, 2001)

20 **Q. Why is a focus group necessary in this filing?**

21 A. Collecting customer opinions of the proposed adoption of an annual fixed-rate purchased
22 gas adjustment factor is a critical step to understand the potential impact of such a change
23 to customers. The Company would like to have the ability to address any specific

1 concerns discovered from the focus group sessions prior to proposing an annual fixed rate
2 purchased gas adjustment factor. It is common to conduct multiple focus group sessions
3 per Company objective. For this study's purposes, two Residential and one Commercial
4 focus group sessions were conducted.

5 **Q. Did the Company give you a list of which customers you should choose from for**
6 **your focus group selection?**

7 A. No. The Company did not give me a list of customers I should choose for the study. As
8 previously stated, I am an independent consultant external to the Company. I conducted
9 the focus groups to solicit unbiased customer opinions. For these reasons, I informed
10 Company representatives prior to the study's inception that I would have responsibility of
11 the selection of customers for the study, and selection would be done using a proper,
12 commonly accepted, random selection technique. I insisted that the Company provide
13 me with the entire database of current CGC customers so that I may apply the appropriate
14 random selection technique. Company representatives did not contribute to the selection
15 of study participants.

16 **Q. How did you determine which customers to contact for participation in your focus**
17 **group?**

18 A. The Company provided me with an electronic file including every current customer of
19 CGC. The file included customer contact information and rate code for each customer. I
20 separated the file, using customer files labeled rate code 101 (Residential Service) as the
21 potential list of Residential focus group participants and customer files labeled rate code
22 311 (Commercial and Industrial General Service) as the potential list of Commercial
23 focus group participants. I generated a list of 300 random numbers, using Excel's

1 random number generator function, for the Residential pool of customer files and a list of
2 100 random numbers for the Commercial pool of customer files. The corresponding
3 customer file numbers were matched with the random numbers. These were the customer
4 files chosen for the list of 300 potential Residential participants and 100 potential
5 Commercial participants. The quantities of 300 and 100 were chosen to account for
6 anticipated customer response for participation in a focus group session. More
7 specifically, I will outline the mathematics involved in choosing the pool size for
8 Residential and Commercial customer files. It is common practice to recruit 15
9 Residential consumers per focus group session in order to ultimately obtain about ten
10 participants. Furthermore, it is common to expect to contact between four and ten
11 customers for every one customer who will agree to participate in the study. Since two
12 Residential groups were conducted for the study, 30 Residential customers needed to be
13 recruited (15 per focus group session). I used the conservative assumption that one in ten
14 customers would agree to participate. Therefore, a pool size of 300 was required for
15 Residential recruitment purposes. A similar method was used for the Commercial
16 customer group; however, Commercial customers were anticipated to be more likely to
17 agree to participate than Residential customers. A Commercial pool of 100 customer
18 files was used to recruit the commercial customers necessary for participation in the
19 focus group session. The resulting customer lists were used to contact customers and
20 request their participation in a focus group session. The customers contacted were
21 offered an incentive for their participation, as is customary with focus group research.
22 Customers recruited were informed that CGC was conducting a study "regarding their
23 gas bills". The recruitment efforts screened for customers who have responsibility for

1 paying and budgeting their natural gas bill. There were no other screening procedures
2 used; therefore, customers of any age, ethnic background, consumption pattern or other
3 characteristic were potential participants for the study. There were a total of 31 final
4 participants for the three focus groups sessions. The minimum requirement of eight
5 participants per focus group session was exceeded for each of the three groups.

6 **Q. Are the results and conclusions of this focus group necessarily representative of the**
7 **Company's customer body as a whole?**

8 A. No. The nature of a focus group and the quantities of customers involved typically do
9 not provide the ability to project the results through statistical inference to a larger
10 population. However, a written survey instrument was provided to the group participants
11 following an explanation of the current and proposed billing procedures but prior to
12 discussion of customer opinions to the proposal. Although not necessarily statistically
13 valid, the results from this questionnaire are reported in numerical format to represent the
14 opinions of the group in Exhibit BW-1.

15 **Q. How were these particular focus groups conducted?**

16 A. These groups were conducted at a professional focus group facility located in
17 Chattanooga on Gunbarrel Road on January 25, 2002. I moderated the discussion of all
18 focus groups. Main topics covered in the focus group sessions included the following:

- 19 1) Introduction and explanation of why customers were contacted
- 20 2) Examination of bill handling procedures
- 21 3) Discussion and list generation of bill content recall
- 22 4) Awareness, perceived meaning and opinions of regulation
- 23 5) Explanation of current billing procedures

1 6) Explanation of proposed billing methodology

2 7) Written survey instrument distributed

3 8) Discussion of opinions of the proposal

4 Customers generated discussions for each of these topic areas and raised several
5 questions about the details of the PGA.

6 **Q. Have you prepared a report of your findings?**

7 A. Yes. I have prepared a report of my findings. The report appears as Exhibit BW-1. I am
8 also submitting video recordings from the focus group sessions as presented in Exhibits
9 BW-2a, BW-2b and BW-2c.

10 **Q. What conclusions have you drawn from these focus groups?**

11 A. I have drawn the following conclusions from the focus groups:

12 1) Customers from the groups would probably not notice a change of the proposed
13 nature in their natural gas bills.

14 2) The majority of customers from the study (about 2/3) are either indifferent or in
15 favor of the proposal.

16 3) Providing information addressing customer concerns regarding assignment of risk
17 and potential losses has an important role in the development of customer opinion
18 of the proposal. There was a noticeable shift away from customer opinions
19 against the proposal when this information was included in the proposal.

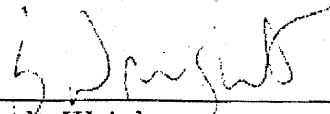
20 4) Customers from the study have a sense of very low control over what they are
21 charged and how they are charged for their natural gas.

22 **Q. Does this complete your testimony?**

23 A. Yes, it does.

VERIFICATION

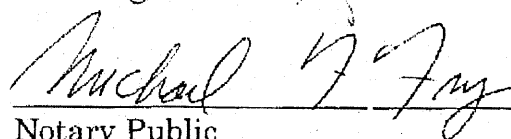
I, Beverly Wright, declare under penalty of perjury that I that I have caused the foregoing written testimony to be prepared on my behalf, that I have read the foregoing testimony and that the statements contained therein are true and correct to the best of my knowledge, information and belief.



Beverly Wright
Consultant

STATE OF GEORGIA)
)
COUNTY OF CHEROKEE)

Sworn to and subscribed before me this 06 day of April, 2002.



Notary Public
My Commission Expires: _____

Notary Public, Cherokee County, Georgia
My Commission Expires August 3, 2005

BMR and Associates

Market Research, Strategy, Analysis

Market Research Findings

Qualitative Study

Analysis of Annual Fixed

Purchased Gas Adjustment Factor



Background

- ◆ The Issue:
 - Modification of the PGA to an annual fixed rate PGA
- ◆ The Study:
 - Focus group sessions in January
 - 2 residential
 - 1 commercial
- ◆ The Objective:
 - Obtain customer opinions of the proposed change



Topics Explored

- ◆ Billing awareness
 - Bill handling procedures
 - Bill content recall
- ◆ Regulation
 - Awareness of regulation
 - What does regulation mean to them
- ◆ Opinions of the proposed method
 - Questions raised from the proposal
 - Reasons for their opinions of the proposal



Billing Awareness

- ◆ Throw away everything except what they must have to make payment
- ◆ Don't understand how they are billed
- ◆ Sense of little control over the amount charged
- ◆ Sanity checks are based on memory of weather conditions and previous billing



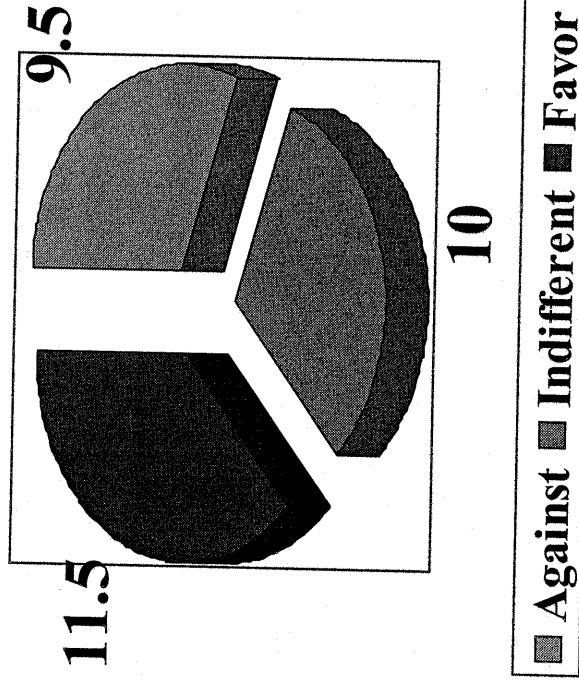
Regulation

- ◆ Awareness that utilities are regulated
- ◆ Not aware of the regulatory agency
- ◆ Not sure exactly what is regulated
- ◆ Gives some level of comfort to some group members; other participants saw almost no value in regulation

Opinions of Proposed Method

- ♦ Mixed reactions between in favor, against and indifferent
- ♦ Request for additional information (although they admit that they commonly do not read bill inserts)
- ♦ Competing with the budget billing concept

Opinions of Annual
Fixed Rate PGA





Conclusions

Based on the focus group sessions:

- ◆ The majority of customers are unlikely to notice a change of the proposed nature
 - if a change is noticed, it will most likely occur during the summer months when bills are most predictable
- ◆ The majority of the customers studied (2/3) are either indifferent or in favor of the proposal
- ◆ Customers assume that the risks and potential losses will fall back to the customers
 - Clarifying that the company will accept the losses seems to have a strong influence in customer opinions
- ◆ Customers feel they have very little control over their natural gas charges